REMARKS

In accordance with the foregoing, claims 1, 2, 4, 6, 8, 10, 12, 13, 15, 18, 20-22, 25, 27-39, 43, 44, 47, 51, 54, 58-60, 62, 64, 66, 68, 72, 73, 76, 78, 80, 83 and 86-88 have been amended. Claims 1-88 are pending and under consideration. Applicants are disappointed to see that the Examiner has withdrawn the indication of allowability to many of the pending claims. The Examiner now relies primarily upon U.S. Patent No. 6,046,981 to Ramamurthy et al.

Attached is a chart to assist in understanding the relationships of the pending claims with each other and with the specification. This chart in no way indicates that corresponding claims contain identical limitations. Further, this chart in no way indicates that the claims are limited to what is disclosed in the application.

Irrelevant

For claim 1 and similar claims, the Examiner cites column 12, lines 15-32. As we understand this portion of the reference, when a new VBR connection is to be admitted, the bandwidth assigned to VBR connections CVBR is recalculated in equation 21. If the new connection results in too little buffer capacity for VBR connections BVBR, this results in too much cell delay variation CDV. In this case, a larger portion of the overall buffer space Btotal is allocated to VBR connections. See column 4, lines 23-37. The Examiner apparently believes that the bandwidth assigned to VBR connections CVBR is recalculated based on the increased buffer space allocated to VBR connections. It appears that some sort of iterative procedure is being performed at column 12, lines 27 and 28.

There are fundamental differences between the method described in the application and the method disclosed in Ramamurthy et al. For example, the invention allows an operator to manipulate the scaling factor β to thereby change the equivalent VBR bandwidths. See third controller 20 in Fig. 2, page 9, line 18 to page 10, line 1 and equations (3) and (4). In Ramamurthy et al., the change in the buffer allocation is done automatically. The independent claims have been amended to recite that the adjustment is made by a switch operator.

There is critical importance to allowing the adjustment to be made by a switch. As described in the application, with connection admission control methods and devices such as Ramamurthy et al., there is little flexibility. After installed at a switch, if the connection admission control method/device is found to be inappropriate for that particular switch operator, adjustments can be made only with great difficulty. On the other hand, with the invention, the purchaser of the connection admission control method/device can easily customize the connection admission control method/device.

With regard to the CBR independent claims, such as claims 15 and 18, Ramamurthy et al. is similar to the present application in that Ramamurthy et al. recognizes that efficiency is reduced when there are many CBR connections. See column 7, lines 8-11. Ramamurthy et al. in step 2, beginning at column 9, line 14, determines how much capacity must be added to accommodate a new CBR connection. In this determination, Ramamurthy et al. considers that the additional CBR connection will reduce the efficiency of the switch. Then, in step 3, beginning at column 9, line 31, the new CBR connection is admitted if the additional capacity is available for allocation to CBR connections.

Ramamurthy et al. considers the inefficiency of additional connections every time a new CBR connection is added. The bandwidth available to CBR connections is increased whenever the new connection would result in unacceptable QOS levels.

As with the VBR connections, all of the adjustments cited by the Examiner are made automatically. On the other hand, the invention allows a switch operator to adjust various parameters. The claims have been amended to show this difference.

With regard to the independent claims directed to unspecified bit rate connections, such as claim 22, the Examiner dsicusses these claims at page 5 of the Office Action. At lines 5 and 6, the Examiner states "However, Ramamurthy teaches that ATM switches explicitly compute the rate using key parameters (scaling factors)." To address this, claims, such as claim 22, have been amended to clarify that a switch operator adjusts the SCR factor. Note that although claim 22 is not restricted to what is disclosed in the specification, claim 22 refers to the second controller 16 shown in Fig. 2 and described at page 9, lines 3-9 of the application. The specification describes that a sustained cell rate for UBR connections can be determined by multiplying the peak cell rate by the SCR factor α. The SCR factor α can be adjusted by a switch operator.

not claimed

In view of the foregoing, it is submitted that the rejected claims patentably distinguish over Ramamurthy et al., taken alone or in combination with any of the other cited references. Claims 21, 50, 79 and 85 have been allowed.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: June 10, 2004

By: Mark Henry
Mark J. Henry
Registration No. 36,162

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501

Constant Speed Traffic Factor = ρ_{CBR}
Var. Speed Traffic Factor = ρ_{VBR}
SCR Factor = α
Scaling Factor = β
Max Factor = m

Method	**Parameter/ Equation**	**Device**	**Machine Readable Device**	**Means-plus-Function**
1	β	**30**	**59**	**88**
2	β, ρ_{CBR}	**31**	**60**	
3/2		32/31	61/60	
4/1	m	35/30	64/59	
5/4		36/35	65/64	
6	β, m, ρ_{CBR}	**37**	**66**	
7/6		38/37	67/66	
8	β, α	**39**	**68**	
9/8		40/39	69/68	
10/8		41/39	70/68	
11/10		42/41	71/70	
12	β	**43**	**72**	
13/2	ρ_{CBR}	33/31	62/60	
14/2	Equation 4	34/31	63/60	
15	m	**44**	**73**	
16/15		45/44	74/73	
17/15		46/44	75/73	
18	ρ_{CBR} (m)	**47**	**76**	
19/18		48/47	77/76	
20/18	m	49/47	78/76	
21	ρ_{CBR}, Equation 2	**50**	**79**	
22	α	**51**	**80**	
23/22		52/51	81/80	
24/22		53/51	82/80	
25	α (β)	**54**	**83**	
26/25		55/54	84/83	
27/25	Equation 3	56/54	85/83	
28/22	m	57/51	86/80	
29	α, ρ_{CBR}	**58**	**87**	